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THE JOURNAL OF PERIODONTOLOGY

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Publication in the JOURNAL OF PERIODONTOLOGY SUPPLEMENT *is not to be understood as endorsement by the Journal or the* AMERICAN ACADEMY OF PERIDONTOLOGY *of opinions expressed in any article, abstract or extract. The object of publishing the various views is to present them without prejudice to the reader for his own evaluation.*

Professional Support of Current Dental Literature

Opinions die but records live

ONE of the greatest weaknesses of dentistry is the lack of financial support of non-proprietary dental journalism by the individual dentist and his apparent indifference to it; in truth, all too many prominent dentists lend their influence to promote proprietary publications although these are entirely free from financial problems. Could it be that as a class of professional men and women we prefer to get something for nothing regardless of its quality? Such a suggestion seems to be refuted by the fact that dentists subscribe freely and willingly to popular magazines for their homes and office waiting rooms, regardless of the cost. Yet a subscription price of five or six dollars for a dental journal seems excessive to most of us.

Some of the popular magazines claim millions of subscribers, others claim hundreds of thousands, this in spite of much competition. While in dentistry the potential subscription list numbers but from fifty to seventy thousand, the most pessimistic dental editor should be encouraged to expect a few thousand *paid* subscribers for his publication if the subject matter is of real interest to dentists. One *must* believe that one-fifth of the dentists are sufficiently devoted to their profession to be willing to support its non-proprietary current literature and to promote its progress. Otherwise, one sickens at the thought of its future.

For more than one hundred years articles have been written on this same subject yet we still fail to support individually and adequately professional dental journalism. It is with chagrin that one recalls the personal sacrifice of Dr. William J. Gies, Founder, and Editor for many years of the *Journal of Dental Research,* and the struggles of its supporters to establish and to make secure, this publication. We did not fully realize that this ideal was *our* responsibility.

The solution does not lie in being "practical" as some would have us believe, by filling our pages with advertisements, and by seeing how cheaply we can publish our periodicals. That is side-stepping the issue and admitting that we are unwilling to support our journalism by the use of organization funds in sufficient amount or by individual member support. We should be proud of our journalism and not apologetic for it. This objective can only be attained by individual support and appreciation of our current dental literature. We must all raise our ethical standards and thus secure our ideals.

The Journal of Periodontology should be permanently established to promote continued interest in periodontia. This can be done if new subscribers in large numbers are obtained and contributions to the Journal Endowment Fund are regularly added by dentists interested in the advancement of dental journalism. One Academy member has sent in sixty-five subscriptions within the past nine months. "Can you top this?"

—G. R. S.

"The members of the Academy are urged to give their support to every effort that is being made to promote professional journalism . . ." Code of Ethics, Section XII.

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THE ENDOWMENT FUND FOR THE JOURNAL OF PERIODONTOLOGY

THE American Academy of Periodontology was born of a great ideal. Its purpose was to advance the science and art of periodontia. For more than a quarter of a century it has steadily pursued that objective.

Among its many activities has been the publication of a journal devoted entirely to periodontology—the only journal of its kind in existence. In keeping with the high ideals which have characterized the Academy, the Journal has always represented the highest standards of professional journalism. It began publication in 1930, and since January, 1931 two issues have appeared regularly each year. During all those years the Journal has been edited and prepared for publication by Dr. Grace Rogers Spalding, wholly as a labor of love and at no little sacrifice to herself. Without her unselfish devotion to the Journal and the ideal which it represents, its publication might not have been possible.[1]

Like many specialty journals of limited circulation it has never been self-supporting. Each year a deficit of several hundred dollars has been met out of the general treasury of the Academy. This has curtailed somewhat the scope of its activities and made it necessary to limit the material which it might otherwise have been glad to publish.

In 1937 an attempt was made to meet this situation by the appointment of a Committee to raise funds for the Journal from among the membership. With some changes in personnel, this Committee has been continued to the present. Each year, at its suggestion, there has been attached to the annual bill for dues, a slip soliciting contributions to the Journal Fund. Some members have responded generously but not in sufficient numbers to meet these recurring deficits. Other dentists interested in periodontia have also contributed.

Now that the Academy has decided to publish a quarterly, instead of a semi-annual journal, for closer sequence, it is more than ever imperative that funds be made available to meet added costs. This could be done in part at least, by raising sufficiently the subscription price of the Journal, but to do this at the expense of its circulation would defeat, in a measure, the purpose of its publication, namely, education of the profession in the field of periodontology. The price of the Journal is being advanced for the year 1945 to $4.00, but since this is for four numbers instead of two as formerly, it is actually no increase per copy. Eventually, and when world conditions improve, the Journal should be made largely self-supporting. Even now we can have a bigger and better Journal if we are willing to pay for it by continuing our contributions to its Endowment fund and by obtaining an adequate number of subscribers.

Arthur H. Merritt, *Chairman*

[1] [The other members of the Editorial Board, Harold J. Leonard, Arthur H. Merritt, and Celia Rich have served continuously for 15 years and have contributed much to the contents and value of the Journal of Periodontology.—*Editor's Note*]

REPORT ON CONTRIBUTIONS TO THE JOURNAL ENDOWMENT FUND

The following Report on Contributions to the Journal Endowment Fund since 1937 was compiled by C. W. Marriott, D.D.S., *Treasurer* of the American Academy of Periodontology, and it is published at the request of the Executive Council.

CONTRIBUTORS TO THE ENDOWMENT FUND AND TOTAL AMOUNTS GIVEN

JULY 15, 1937—OCTOBER 15, 1944

Adams, F. L.	$ 10.00	Loftus, Leo J.	18.00
Aiguier, James E.	5.00	Merritt, Arthur H.	970.00
Alford, W. C.	15.00	Miller, Samuel C.	5.00
Allen, Hunter S.	45.00	Mosher, Donald	5.00
Bell, Dickson G.	20.00	Neil, L. A.	1.00
Bettman, M. Monte	5.00	Orban, Balint	10.00
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Hartzell, Thomas B.	15.00	Weeks, Haidee	10.00
Hicks, Hugh Thomas	15.00	Westbrook, J. C., Jr.	5.00
Hirschfield, Isador	200.00	Winter, Gordon R.	55.00
Huntington, Roger E.	5.00	Yeretsky, Willa	5.00
Johnson, Raymond E.	10.00	Past-Presidents' Breakfast[1] and individual contributions at 1939, 1940, and 1941 Annual Meetings	240.00
Jones, Olender H.	20.00		
Kier, George P.	15.00		
Kirkland, Olin	100.00		
Leonard, Harold J.	10.00	TOTAL	$2259.00

[1]Past-Presidents attending and contributing:—M. Monte Bettman, A. W. Bryan, M. H. Garvin, Clayton H. Gracey, Isador Hirschfeld, Carl Hoffer, Austin F. James, Olin Kirkland, Harold J. Leonard, John O. McCall, Arthur H. Merritt, Walter H. Scherer, Carlos H. Schott, Edward B. Spalding, Grace Rogers Spalding, Benjamin Tishler, Justin D. Towner, Haidee Weeks.

Many members have aided by obtaining subscriptions to the Journal and others by gift subscriptions; among the latter being Hunter S. Allen, Edward L. Ball, Harold J. Leonard, E. Romle Romine, Celia Rich, Clarence J. Salvas, Walter H. Scherer, Carlos H. Schott, Willa Yeretsky, Jesse Williams.

(The Editor would appreciate being informed of any omissions in the last group of names.)

ABSTRACTS AND EXTRACTS OF CURRENT DENTAL LITERATURE

(c) Other Researches

(Continued from 11(2):118. July, 1940)

130—Boyle, P. E. and Wesson, L. G.: **Influence of vitamin D on the structure of the teeth and of the bones of rats on low calcium diets.** *Arch. Path.* **36**:243. Sept. 1943. Abstr. *reprinted* from *J.A.D.A.* **31(7)**:571. Apr. 1944.

In the continuation of a previous study, observations were similar to those described earlier. Vitamin D supplements promoted growth, improved appetite and increased retention of calcium and the degree of calcification of bones in rats on low calcium-high carbohydrate diets, but they had no effect in these respects on animals on high protein-low calcium diet. Vitamin D, however, improved the structure of bones and teeth in animals on both diets. Teeth in animals low in vitamin D were abnormal, showing wide uncalcified predentin and globular calcification of the dentin, while those in animals receiving supplements of vitamin D appeared normal. Bone shafts and trabeculae in animals on a diet supplemented with vitamin D showed atrophy, but were otherwise almost normal. Rats on vitamin D deficient diets showed active resorption and re-formation, resulting in the production of fibrous marrow spaces, resembling those in the osteitis fibrosa of hyperparathyroidism. It is suggested that ingestion of vitamin D may promote normal calcification of teeth and bones, even under adverse circumstances, a situation which the authors compare to the action of the "liver factor" in promoting normal maturation of erythrocytes in pernicious anemia. —*David B. Scott*

131—Boyle, P. E.: **The A, B, C, D's of Dentistry.** *Harvard D. Alum. Bul.* **4**:28. Jan. 1944. Abstr. *reprinted* from *D. Outlook.* **31(4)**:168. Apr. 1944.

Most work on vitamins has been done with A, the B group, C and D. A sound research program in dentistry requires study of the changes in the tissues of the mouth in the light of changes taking place in other tissues. Conversely, the interpretation of changes in the long bones of the arm and of the leg, and in all bony structures, can often be interpreted more accurately from a study of the concurrent changes in the teeth. There are several widespread misconceptions about vitamins. First of all, it should be stressed that the vitamins are a heterogeneous group. They have in common only the fact that they are essential to the well being of living things. Vitamin A has no more relation to vitamin C, for example, than salt has to sugar. One vitamin does not take the place of another. Animals or humans, if given all the vitamins except one, will develop the syndrome characteristic of that particular vitamin deficiency. They are not a substitute for food. They do not necessarily come in bottles from the drug store. Fresh fruits and vegetables, properly cooked meats, and milk are all sources of one or more vitamins. The dark breads, particularly whole wheat, also contain certain vitamins. If the dietary is varied and the selection and preparation of foods is intelligent, drug store sources of the various vitamins is rarely necessary.

Vitamin A primarily affects certain specialized epithelial tissues. It also affects bone and tooth formation. Damage to the central nervous system in young animals is due to failure of the surrounding bone to grow at a rate proportional to the nervous system. The vitamin B group do not appear to effect tooth formation specifically. Vitamin C is essential for formation of bone, dentine, and collagen fibers, including the principal fibers of the periodontal membrane. In its absence, failure of the ability of the periodontal apparatus to withstand stress results. Vitamin D and adequate minerals are essential for tooth and bone calcification. Lack of these causes distortion of the shape of teeth in laboratory animals.

—*Joseph H. Kaufmann*

132—Sicher, Harry and Weimann, Joseph P.: **Causes of physiologic tooth movement.** [*Reprinted* from *J.D. Res.* **23(3)**:190. June, 1944.]

It is well known that the physiologic movements of fully developed teeth are always accompanied by changes in the alveolar bone. It is highly controversial whether bone apposition and resorption are the cause or the consequence of tooth movement. An analysis of the growth of the molars and the surrounding alveolar bone in the rat led to the conclusion that the disto-occlusal move-

ment of these teeth is the result of a differential growth pattern of bone and cementum. Bone grows by apposition in restricted, well-defined areas. Such areas are the mesial surfaces of the alveolus, the fundus, and the crests of the alveolar septa of the rat molars. In contrast cementum shows continual apposition on its entire surface, and is, therefore, covered by a layer of uncalcified matrix, cementoid tissue. As are other uncalcified hard tissues, cementoid is relatively immune to resorption. Apposition of bone, e.g., on the mesial wall of the alveolus, leads to a slight increase in pressure in the mesial periodontium. This does not cause resorption of the opposing root surface, but effects a distal movement of the tooth; narrowing of the distal periodontium is then manifested in a resorption of the distal alveolar bone leading to a reëstablishment of the equilibrium between tooth and bone.

133—Tenenbaum, Benjamin and Karshan, Maxwell: **Blood studies in periodontoclasia.** [*Reprinted* from *J.D. Res.* **23(3)**:190. June, 1944.]

Blood was analyzed in 69 patients, 14 to 61 years of age, with advanced periodontoclasia, and in 22 individuals (control group), 17 to 60 years of age, who were free from this condition. Determinations were made for total calcium, inorganic phosphate, phosphatase, protein, sugar, uric acid, carbon dioxide combining power, cholesterol and vitamin C. In periodontoclasia patients, analyses were made immediately before all their remaining teeth (at least 12) were extracted. Fifteen patients in this group gave normal blood values. In the 54 cases which gave 1 or more values outside normal ranges, 8 calcium, 2 inorganic phosphate, 13 phosphatase, 2 uric acid, 19 sugar, and 10 cholesterol values were above the upper limit of generally accepted normal ranges (for cholesterol this was taken as 260 mg. per 100 cc. of plasma, highest value in control group). Two calcium, 2 inorganic phosphate, 6 phosphatase, 23 vitamin C, and 3 cholesterol values were below low limit of normal (for cholesterol this was taken as 100 mg. per 100 cc. of plasma, lowest value in control group). Values for protein and CO_2 combining power were in normal ranges. In control group, 3 vitamin C values were below normal while all other constituents were in normal ranges. In periodontoclasia group, out of 51 cases tested for red cell sedimentation rate, 27 gave values above normal, whereas only 2 control cases out of 24 showed a high rate. (A preliminary report was published in *J. D. Res.* 20:310, 1942.)

(f) Treatment

(Continued from 14(2):55. January, 1943)

671—Alford, W. C.: **Postoperative care of periodontal cases.** *J. Tenn. D. A.* **23 (4)**:21-25, Oct. 1943.

Author stresses importance of patient coöperation in post-operative care of periodontal cases. The burden of this phase of treatment rests on the patient but the dentist should make sure that he has done his full share in instructing the patient in home care and impressing him with its importance. It is the patient's part to maintain the established hygiene of the mouth and to stimulate the circulation in the gingivae.

Brushing technic should be simple and practicable. A hard brush is advocated except in a few cases at the outset where the tissues are very sensitive, and even here if the bristles are wedged into the triangular interproximal spaces with their flat sides against the gingiva—a stiff brush may be used with impunity. Floss and interdental picks and stimulators of various kinds are advised and corrective diet as indicated.

—*Celia Rich*

672—Brodsky, Ralph H.: **Studies in the treatment of acute and chronic oral infections by soluble diamin-sulph-ricin-iodi solutions.** [*Reprinted* from *J. D. Res.* **23(3)**:214. June, 1944.]

During the past year this solution has been used topically in the treatment of acute alveolar abcesses, chronic infections of the mouth, and in root canal therapy with good results. In an extensive tuberculous osteomyelitis of the mandible of about one year duration, where much destruction had already occurred, daily irrigations of this solution resulted in healing within several weeks. *In vitro* studies indicate a definite bacteriostatic action. Where blood agar was used, high bacteriocidal action was observed. It is a watery solution of a diamin salt of a soluble sulfa, plus iodine, combined with a detoxifying ricinoleate. Further studies in the topical and parenteral use of this drug are in progress.

673—Cross, H. W.: **Gum tumors in pregnancy and gingivitis gravidarum.** *Brit. D. J.* **75**:85. Aug. 20, 1943. [Abstr. *reprinted* from *Annals of Dentistry* **2(3)**:122, Dec. 1943.]

The author presents two cases of so-called "pregnancy tumor" of the gums. The first case, in a 30-year old patient, showed a plum colored, somewhat pedunculated swelling about the size of a pea. The patient stated the swelling had been present at the same site (between and causing separation of the upper left central and lateral incisor teeth), in each of five previous pregnancies. It became larger each time it occurred and disappeared shortly after parturition each time. The bulk of the tumor was buccal, and extended just back to the palate. There was some slight surface ulceration. The tumor was removed by excision under procain anesthesia.

The second case was a 20-year old primipara, with a pedunculated, dark red swellin, larger than a pea, between and separating the upper left lateral incisor and cuspid teeth. The tumor extended to the incisal edge and reached to the palate. Ten days after delivery, the tumor had reduced one-half in size. A week later it was excised, using 2% procain analgesia and "wonder-pack" dressing.

Both cases histologically showed strands of the stratified squamous epithelium reaching deeply into the fibrous connective tissue, which is compact and not well differentiated. In spite of its vascular appearance clinically, blood vessels are not numerous.

Miller, Hüber, Bresler, and Ziskin divide gingivitis of pregnancy into 4 types: (1) Hyperemia, (2) Marginal gingivitis, (3) Hypertrophic gingivitis, or a generalized gingival hyperplasia, (4) Epulis gravidarum (least common of 4 types).

Possible etiological factors include: (1) ascorbic acid deficiency (Hüber, Kutzleb, Brauer), (2) disturbance of calcium metabolism (Molnar), (3) hormonal alterations (Molnar, Ziskin, Miller), (4) inflammation due to trauma (Bresler, Brauer).

The author discusses epulis gravidarum, which is a deep red or syanotic tumor, somewhat pedunculated, up to 1 cm. or more in diameter. It bleeds easily, and may be superficially ulcerated. The tumors start in the third month of pregnancy, are at their maximum at the seventh or eighth, and usually disappear rapidly after delivery. There is a tendency to recur with succeeding pregnancies, and may cause separation of the teeth. The tumor may occur at puberty and to a lesser extent with menstruation.

Treatment of pregnancy gingivitis should consist in the administration of 100 to 300 mgm. ascorbic acid daily, and thorough antenatal dental prophylaxis, with special attention to removal of irritants (sharp edges, tartar, etc.).

674—Fosdick, L. S. *et al:* **Vitamin K and sweets.** *Science*, **96**:45, 1944. Abstr. *reprinted* from *Brit. D. J.* **77(5)**: 134. Sept. 1, 1944.

L. S. Fosdick, O. E. Fancher and J. C. Calandra found that reactions involved in the production of lactic acid in the mouth were analogous to reactions in lactic acid production in muscle. They experimented with substances which would inhibit these reactions and delay acid formation so as to produce a transient neutralisation of the saliva—to find a substance which at the same time would be non-toxic. They found that synthetic vitamin K (2 methyl 1-4 naphthoquinone) was such a substance. *In vitro,* experiments show that 1 mg. of this per 100 c.c. of saliva, 10 per cent. glucose, forms no acid in a four-hour incubation period. In the absence of vitamin K 2 mil. eq. of acid is formed. But synthetic vitamin K has no effect on bacterial growth therefore the effect is not due to any bactericidal property of the vitamin. As the formation of lactic acid in the saliva is rapid after the ingestion of sugar, Fosdick has come to the conclusion that it is necessary either to eliminate sugar from the diet of persons susceptible to caries or to incorporate with the sugar a substance which will inhibit this acid reaction. He proceeds further that "on this basis it is quite probable that if synthetic vitamin K were incorporated in sugar candy it could effectively inhibit dental caries." He further lends support to the findings of Staz that vitamins K may be one of the substances removed from the sugar cane juice during its purification for market.

675—Glickman, Irving and Basil G. Bibby: **Effect of sodium perborate upon the gingival mucosa: a controlled experiment.** *J.A.D.A.* **31(17)**: 1201-1211. Sept. 1, 1944.

This paper notes clinical reports from different sources on the use of sodium per-

borate for Vincent's infection and their own clinical studies; also the experiments of Schroff with poultices containing varying proportions of sodium perborate held between the alveolar mucosa and the lips for a period of thirty minutes. "Erythema, vesication, and sloughing resulted." Later, Schroff added from 25 to 45 per cent calcium monophosphate as a neutralizing agent to the poultices and found that only a physiologic erythema resulted from their use as described above.

The authors report an animal investigation including clinical and histologic studies to determine "(a) whether repeated treatment with unflavored sodium perborate, flavored sodium perborate, and neutralized sodium perborate actually caused changes in the gingival mucosa, and (b) what the exact nature of these changes is".

The dogs used in the experiment were properly fed and drinking water was available at all times, throughout the experiment. The procedures used in the experiment are given in detail. The histologic findings were most interesting, and should be studied by any one using this drug. The animals showed individual differences in response to treatment which could not be accounted for.

The results of these experiments lead the authors to believe that neither sodium perborate nor its neutralized product "neutrox" is of value in treating chronic marginal gingivitis resulting from accumulations in the gingival sulci or from lack of masticatory stimulation. The harm done the gingival mucosa was not diminished by attempting to neutralize with an acid wash.

"Repeated applications of unflavored sodium perborate, flavored sodium perborate. 'neutrox' and sodium hydroxide pastes caused varying degrees of inflammation, edema, and ulceration in the gingival mucosa of dogs. There was an inherent variation in the response of individual dogs to these drugs. The lesions produced healed spontaneously with the cessation of treatment."

—*G.R.S.*

676—Grace, A. W.: **Beneficial effect of smallpox vaccine on recurrent aphthous ulcers of mouth and tongue.** *Archives of Dermat. and Syphil.* **48**: 143-250, Aug. 1943, Abstr. *J. A. M. A.* **123(8)**, Oct. 23, 1943.

Grace employed repeated inoculations of smallpox vaccine in 2 cases of aphthous ulcers on the assumption that the condition is probably caused by a virus akin to that of herpes simplex, a disease which, when recurrent, is frequently controlled by such treatment. In both cases the disease had been unaffected by local applications of caustic materials or by the use of diets or vitamins. Great improvement occurred in the 2 cases.

677—Hine, Maynard K.: **Oral Vincent's infection.** (A bulletin of the Com. on Pharmacology and Therapeutics of the U. of Illinois) *Fortnightly Review* of Chicago D. Soc. **5(8)**:10-12, April 15, 1943.

This bulletin is in the nature of a review of the entire subject of Vincent's infection, and is ostensibly intended to clear up some of the confusion that exists as to just what preparation and treatment is most practical for the handling of this condition. It is of additional interest at the present time because with the rapid concentration of men and women in our military services, the increase of working hours and the rationing of foods it is natural that Vincent's infection is becoming more prevalent.

An exceptionally comprehensive resumé as the following subtitles will indicate "Definition, Incidence, Etiology, Diagnosis, General Symptoms, Treatment, and Prognosis."

—*C.R.*

678—Hirsch F. G. and Spingarn, C. L.: **Treatment of fusospirochetal infections of mouth and throat with sulfathiazole.** *Military Surgeon* **93**:237-338. Sept. 1943. Abstr. *reprinted* from *J.A.M.A.* **123(12)**:794. Nov. 20, 1943.

According to Hirsch and Spingarn, infections of the mouth and throat with the fusospirochetal group of bacteria are encountered frequently in military medicine. In the first World War they were common among the enlisted personnel, especially under field conditions, and were known as "trench mouth". The causative organisms are present in small numbers as harmless saprophytes in many normal mouths, but they may become pathogenic in the presence of predisposing conditions such as trauma to the oral mucosa by neglect of the hygienic care of the mouth and teeth and a lowering of the general health and resistance. The disease may take several forms. Commonly one encounters (a) gingivitis, marked by numerous ulcerations of the peridental

[periodontal] tissues with reddening and swelling of the gums, which bleed easily, and (b) angina, characterized by ulcerations of the tonsils and pharynx. A variety of therapeutic agents have been used to treat infections of this type. This series consists of 8 young men with fusospirochetal disease of the mouth and throat. Moderate doses of sulfathiazole (4 gms. daily) for periods of two to six days were effective in controlling fusospirochetal infections of the mouth and throat. This therapy is well tolerated and produces a prompt relief of symptoms and healing of the lesions. The treatment has the advantages of simplicity and speed.

679—Jewesbury, E. C.: **Misuse of intravenous neoarsphenamine for Vincent's infection.** *Brit. Med. J.* **2**:351-380. Sept. 18, 1943. Abstr. *reprinted* from *J. A. M. A.* **123(13)**. Nov. 27, 1943.

Jewesbury points out that there still seems to be a fairly widespread impression that intravenous neoarsphenamine is the most potent method of treatment in severe cases of . . . Vincent's infection. Occasional reports of Vincent's infection occurring in patients undergoing antisyphilitic treatment have cast doubt on the efficacy of intramuscular or intravenous arsenic administration in dealing with lesions of the mouth. The author cites histories of 2 men who developed Vincent's infection while undergoing neoarsphenamine treatment for syphillis. He feels that, if the drug is valueless prophylactically, skepticism as to its value as a single intravenous injection for Vincent's angina is even more justified. Treatment of Vincent's infection calls primarily for treatment of the underlying condition, whether it is local or general. Nutritional deficiencies must be remedied. Healing of the lesions in the mouth is best accomplished by daily local applications of 10 per cent chromic acid, followed immediately by hydrogen peroxide (10 vols.) and subsequent two hourly mouth washes of peroxide. This local treatment is particularly valuable when combined with 150 mg. of nicotinic acid daily by mouth. The author hopes that the employment of intravenous arsenical compounds for this condition will be recognized as useless and wasteful.

680—Jones, H. E. *et al:* **Stomatitis due to riboflavin deficiency.** *Lancet*, **1**:720. 1944. Abstr. *reprinted* from *Brit. D. J.* **77(5)**:134. Sept. 1, 1944.

H. E. Jones, H. F. Green, T. G. Armstrong, and V. Chadwick describe an investigation of 1,746 cases of stomatitis among 10,313 men in a camp in North Africa. On a diet containing an average of 1.61 mg. of riboflavin per head a day the camp population had been free from stomatitis but the latter appeared when the intake was reduced to 1 mg. per head. Its nature is described in detail with lesions of the tongue, mucous membrane, and angles of the mouth, many of them in the later stages resembling those of pellagra. A striking observation was that the upper lip was spared in all but twenty cases. The incidence of palatine lesions was 5 per cent. These were raw red areas similar to those observed on the lips but they always had a serpigenous outline. They were generally well back on the palate but sometimes there was a larger area of redness near the alveolar margin. The whole condition cleared rapidly on addition of milk, meat, eggs or yeast to the diet but was not benefited by large doses of nicotinic acid. It improved at once on addition of riboflavin to the former diet. Swabs from the mouth of thirty sufferers gave moderate numbers of Vincent's organisms in eight cases, monilia in one, and a normal mixed flora in the others. Local treatment with copper sulphate, "Protargol," or flavine produced no improvement.

681—Leof, M.: **Clamping and grinding habits; their relation to periodontal disease.** *J. A. D. A.* **31**:184. Feb. 1, 1944. [Abstr. *reprinted* from *D. Outlook* **31(4)**:167. 1944.]

One of the factors which consistently remains unrecognized and uncontrolled in the management of periodontal disease is the habit of clamping and grinding the teeth, also known as bruxism or bruxomania. In the attempted elimination of this habit the dentist must create a relationship between himself and his patient whereby he is able to evoke a strong desire in the patient to control the condition. A sustained determination to overcome bruxism throughout the intervals between visits depends greatly on this relationship. There are three types of patients with this habit who are difficult to handle. First, the indifferent patient who feels he has done his duty by coming for treatment and leaves it to the dentist to cure his condition. He will make no effort

to co-öperate. Second, the resistant patient, who is very positive that he has no habits. He is sure he could have no habits without being conscious of them, and hence makes no effort to observe himself. Third, the hypersensitive neurotic, who has a high incidence of habits, the neurosis being the cause. In the more extreme and unmanageable of these cases, a consultation with a psychiatrist is advisable. Self-observation of habits by such patients will often be easier than with the ordinary patient, but the control may be more difficult. This type, if a sufferer from insomia, is the most difficult of all. Once controlled, clamping and grinding habits occasionally recur. This should not deter the practitioner. A patient who has successfully controlled his habits is very likely to recognize any relapse. Such a person will see his dentist before much harm is done.

The writer summarizes as follows:

1. The normally functioning periodontal membrane is subject to intermittent stresses conducive to its health.

2. In clamping and grinding habits, the periodontal membrane is subject to constant or excessive stresses, which usually become primary or secondary etiological factors in periodontal disease.

3. Clamping and grinding habits are perversions of occlusal function occurring more frequently than is generally acknowledged.

4. The habits, though complex, can be classified. Classification is an aid in detection and diagnosis.

5. The practitioner diagnoses the habits by obtaining a careful history of the patient's oral activity, including the patient's report of his mouth movements after a week of careful observation.

6. The control of clamping and grinding is established by:

(a) Removing local irritational conditions and eliminating hyperocclusal stress.

(b) Bringing subconscious habits into the conscious mind.

(c) Checking on the patient's identification of emotional or psychological association with the habits.

(d) Substituting of physiologic rest position for clamping or grinding in the daytime through conscious control.

(e) Night-time control through conscious effort, relaxation, change in sleeping position, alarm clock method and use of an immobilizing splint.

—*Joseph H. Kaufmann*

682—Martin, Elizabeth M.: **Report on the clinical use of bone meal.** *Jour. C.M.A.* **50(6)**:562-563. June, 1944. Condensed in *Dentistry* **5(1)**:1. Sept. 1944.

Bone meal was first tried on a six year old boy who had been taking 10-gr. doses of dicalcium phosphate twice daily with vitamin D because he continued to show signs of undernutrition, complained of bone pains, and had but little enamel on his deciduous teeth. The patient was given three 10-gr. capsules of bone meal daily. In one week the child was much improved. He later gained in weight until normal for his age. The results in this one case justified studies on 112 children who had symptoms of calcium deficiency. The results with bone meal were better than those following the use of dicalcium phosphate.

A similar experiment was tried on pregnant women, giving twenty-five patients 10-gr. bone meal capsules 3 times a day and twenty women 15-gr dicalcium wafers twice daily the last six months of pregnancy and the first six weeks of lactation. All the babies were normal. The babies whose mothers had had bone meal had long silky hair and remarkably long nails, and none of these mothers had any dental caries; the mothers on calcium phosphate averaged 1.2 cavities per patient at the time of the final check-up, six weeks post-partum examination. —*G.R.S.*

683—Query: **Recurrent ulcers of the mouth.** *J. A. M. A.* **122(5)**:347. May 29, 1943.

Case is described of woman of 60 with recurring, extremely painful ulcers of mouth, the condition having commenced at the menopause. The ulcers are slow to heal. General condition is excellent and careful examination disclosed nothing significant. Do such conditions result from endocrine dysfunction? Answer. Description indicates diagnosis of "periadenitis mucosa necrotica recurrens", a familial condition found in older women and said to have an endocrine etiology. Several treatments are suggested though it is stated that none has proved consistently effective. The following should be tried: Local use of alum, and internal administrations of solution of po-

tassium arsenite; theelin by injection or orally; potassium chlorate, .65 gm. three times a day. On the chance that fusospirochetal organisms may have been overlooked in investigating the oral flora, neoarsphenamine (10% in glycerine) alternating with sodium perborate packs, is worth trying.

—*Copy*

684—Schott, Carlos H.: **Relation of dental infection to cardiac disease.** *Cincinnati J. of Med.* **25(7)**:280-285. Sept. 1944.

The present day practice of cardiology as it relates to dentistry suggests that dentists should know more about fundamentals of cardiology and that physicians should "know more of the fundamentals and nature of dental foci of infections". Physicians and dentists should coöperate in cardiac cases where there is a possible dental involvement.

The author refers to Taran's statistics on a three-year clinical observation period showing that removal of decayed teeth definitely contributed to improving the health of children suffering from rheumatic heart disease, however, in some cases subacute bacterial endocarditis followed the dental extractions. From this one can infer that in rheumatic heart disease, dental extractions may present a hazard, hence the need for close coöperation between physician and dentist in these cases.

It is admitted that the progress of heart disease may be retarded by the removal of focal infection. Caution is given about looking upon the teeth as the sole source of possible infection resulting in arthritis and cardiac disease. Other sources should be looked for before all of the teeth are sacrificed.

Most authorities agree that removal of dental and other focal infection has a favorable influence on established heart disease although it will not bring about its cure.

—*G. R. S.*

685—Sinclair, J. A. and Douglas, Beverly: **Local implantation of gelatin in wounds.** *Arch. Surg.* **49**:47-50. July, 1944.

The authors assumed that wounds might heal more readily by fibroplasia if certain essential substances ordinarily supplied slowly by the body were placed directly into the fresh wound in adequate amounts.

They give an interesting explanation of the rationale of the use of gelatin for this purpose, quoting at length from Harrow and Sherwin's *Textbook of Biochemistry* (1935) on the properties of collagen "which is the main organic constituent of connective tissue and bone". Analysis has shown that gelatin, which results when collagen is boiled, is chemically almost identical with it, gelatin containing practically all the essential amino acids. The healing effects of gelatin may thus be attributed to the fact that it provides an excess of these essential elements. Sinclair used gelatin implants successfully in many extraction operations combining it with sulfonamide and mixing it with the blood in the socket before clotting took place, and he found the healing much healthier than with sulfanilamide alone.

The particular experiments described here were made at Vanderbilt University Medical School in collaboration with Dr. Beverly Douglas of the surgical staff. Deep wounds were made with a scalpel in the backs of dogs and some were packed with gelatin, a few with collagen and ossein, while others were left as controls. Strips were cut from the operated region after a week and ingeniously tested for the strength of the healed tissue by suspending heavier and heavier weights from one end of the strip. The wounded tissue which had been treated with gelatin or collagen withstood strains thirty-three to one-hundred per cent greater than the untreated material in almost every instance.

Sinclair and Douglas also applied gelatin and sulfathiázole to ulcers from varicose veins and to other deeper ulcers in humans, which had failed to heal under previous treatments with elastoplast and sulfathiazole, and in each case healing was satisfactory. It is concluded that implantation of gelatin, or collagen in experimental wounds strengthens the healed tissue, and in fresh open wounds or in patients with hypoproteinemia or lowered reserves of vitamin C, the needed intercellular substances may be readily supplied by gelatin so that fibroplasis can proceed in a more nearly normal way.

There is no incompatibility between sulfonamides and gelatin.

—*C. R.*

686—Strock, Alvin E.: **Relationship between gingivitis and penicillin administration** (Preliminary report).

J.A.D.A. **31(17)**:1235-1236. Sept. 1, 1944.

An apparent relationship between the condition of the gingivae and penicillin administration has been observed by the author. Of 198 patients treated with penicillin for various systemic disorders, all were free from inflammation of the gingivae although thirty-seven of this number had a history of bleeding gums or of ulceration and spontaneous bleeding previous to the penicillin therapy.

An attempt was made to verify this influence of penicillin under controlled conditions on fifteen patients with ulcero-membranous gingivitis, by using penicillin as the only form of therapy. Patients, male, aged 18 to 50 with the usual symptoms, local and systemic, of Vincent's infection. Two patients had in addition acute alveolar abscesses, one had tuberculosis with skin lesions, two had an underlying bismuth stomatitis, one had dermatophytosis, and four had ulceration involving the cheeks and throat. No hygienic measures of any kind were used and no special diets. Unlimited smoking was allowed.

"Penicillin was administered from 1,250,000 units intramuscularly to 5,000 units placed into the mouth and held at rest for lengths of time ranging from one hour to continuous bathing except during eating and sleeping periods."

All cases improved promptly, subjective symptoms within the first twenty-four hours were relieved, and clinical changes from then on were noted until complete healing had taken place. The alveolar abscesses subsided promptly, the dermatophytosis improved within forty-eight hours, the tuberculous skin lesions, resembling *erythema multiforme*, cleared up within seventy-two hours. The number of oral spirochetes and fusiform bacilli decreased rapidly.

When penicillin is used intramuscularly or locally, it seems to have a beneficial effect on the gingival tissues, giving them better tone, less tendency to bleed, and an unusual healing quality in spite of unfavorable local conditions. Best method of administration and dosage yet to be established.

—*G.R.S.*

A Letter to the Editor

Nomenclature

October 6, 1944

Dear Doctor Spalding:

I certainly wish to take issue with the criticism by Dr. Balint Orban of my use of the term "Periodontoclasia" in my discussion of "Nutritional Factors Relating to Gingival and Periodontal Health and Disease" in the Supplement to the January, 1944 issue of the *Journal of Periodontology*.

Dr. Orban's chief premise is that terms used in papers should be in accordance with the recommendations of the Nomenclature Committee of the A.D.A. as well as the Academy of Periodontology.

The term objected to, is given in the Report of the Nomenclature Committee, *J.A.D.A.* 30:1112, July, 1943 as follows: "Periodontoclasia: Term to indicate non-specifically and collectively all destructive and degenerative diseases of the periodontium." It is the only inclusive term given by the Committee.

It is granted that Dr. Orban has the personal privilege of believing that the term "Periodontoclasia" is even worse than the term "Pyorrhea", and doesn't mean a thing, as was stated in the October 1, 1944 issue of the *Fortnightly Review* on page 6. But, to my knowledge, neither the Academy of Periodontology nor the Nomenclature Committee have officially accepted Dr. Orban's proposed nomenclature and classification of periodontal disease. Also, there are many who do not agree with his basis of classification.

As long as the terms stand as accepted, it is certainly proper and correct to use those accepted terms in papers published in the official organ of the Academy. Furthermore, when I have conformed to such authority, I do not wish it implied that proper terms were not used.

Sincerely yours,

DOROTHEA RADUSCH
909 Metropolitan Bldg.
Minneapolis 2, Minnesota

In Memoriam

WALTER C. BRUNK SAMUEL CRIPPS

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